

ABSTRACT

In a high-pressure discharge lamp that includes a bulb formed from a light emitting part having a discharge space therein and a pair of sealing parts connected to the light emitting part, and an electrode pair disposed within the discharge space, a section of a proximity conductor is wound substantially spirally around one of the sealing parts within a predetermined range from the light emitting part, while the remaining section of the proximity conductor crosses over the light emitting part and is electrically connected to the electrode nearer the other sealing part. By initiating a discharge after applying a high-frequency voltage of 1 kHz to 1 MHz to a high-pressure mercury lamp having this structure, the breakdown voltage can be suppressed to at least 8 kV.